

Remarks

The above Amendments and these Remarks are in reply to the Office Action mailed November 30, 2004.

Claims 1-29, 33-37, 39-43, 45-47, 49, 51-74 and 77-98 were pending in the Application prior to the outstanding Office Action. In the Office Action, Claims 72-74 and 94 were allowed, Claims 1-29, 33-37, 39-43, 45-47, 49, 51-71, 77-93, 95, 97, and 98 were rejected, and Claim 96 was objected to solely as being dependent upon a rejected base claim. In the present reply, the Applicant has amended claims 1, 7, 13, 52, 64, 87, 92, 93, 95, 96 and 98. Accordingly, Claims 1-29, 33-37, 39-43, 45-47, 49, 51-74, 77, and 95-98 are currently pending. The Applicant respectfully requests reconsideration.

Rejection Under 35 USC 112

Within the Office Action, Claims 1-29, 33-37, 39-43, 45-47, 49, 52-71, 77-86, and 87-91 were rejected under 35 U.S.C. 112 as being indefinite. The Applicant's attorney wishes to thank Examiner Bonderer for his time in conducting a telephone interview on January 27, 2005. In the interview, the Examiner and Applicant's attorney discussed various proposed amendment to the claim language. The Examiner agreed to the above amended Claims 1, 7, 13, 52, 64 and 87 to overcome the §112 rejection. Accordingly, the Applicant submits that Claims 1, 7, 13, 52, 64 and 87 are definite and in a condition for allowance.

Regarding the dependent claims, Claims 2-6, 77-80 and 83 are dependent on independent Claim 1. Claims 8-12 and 84 are dependent on independent Claim 7. Claims 14-29 and 81, 82, 85 are dependent on independent Claim 13. Claims 33-37, 39-43, 45-47, 49, 51 and 86 are dependent on independent Claim 87. Claims 53-63 and 88-91 are dependent on independent Claim 52. Claims 65-71 are dependent on independent Claim 64. As stated above, Claim 1, 7, 13, 52 and 87 are definite are therefore allowable. Accordingly, Claims 1-29, 33-37, 39-43, 45-47, 49, 52-71, 77-86, and 87-91 are also allowable for being dependent on allowable base claims.

Rejections Under 35 USC 102

Within the Office Action, Claims 1, 2, 4, 7, 8, 10, 13, 16-29, 52, 55-82, 92, 93, 95, 97, and 98 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,401,269 to Buttner-Janz et al. (hereinafter Janz). The Applicant respectfully disagrees.

The present invention is directed to an artificial vertebral disk replacement implant having a top plate 110 and a bottom plate 120. The present implant includes a spacer 130 (Figure 3A) having a curved upper surface 310 and a curved lower surface 320, whereby the spacer 130 is non-symmetrical about the transverse plane. The curved upper surface 310 is radially oriented about a first axis and the curved lower surface 320 is radially oriented about a second axis which is perpendicular to the first axis. The spacer 130 includes two side walls 312, 314 which border the upper surface 310 as well as two perpendicularly oriented side walls 316, 328 which border the lower surface 320. The top plate 110 includes a cavity 210 which has a curved surface 211 that mates with the upper surface of the spacer 130. The bottom plate 120 includes a cavity 240 which has a curved surface 241 that mates with the lower surface of the spacer. Both cavities 210, 240 have side walls which correspond with the side walls that border the curved surfaces 310, 320 to limit the movement of the top and bottom plates to their respective axes. In one embodiment, this particular configuration allows the top plate 110 to pivot about the first axis to accommodate flexion and extension bending as well as twisting. The configuration of the implant also allows the bottom plate 120 to pivot about the second axis to accommodate lateral bending as well as twisting.

In contrast, Janz teaches an intervertebral disc implant which includes a top plate and a bottom plate with a prosthesis core therebetween. The core in Janz is shown and described as having a symmetrical, oval shape, whereby the top articular surface 6 has the same shape as the bottom articular surface about the transverse plane. This is evidenced in the Figures as well as the specification, wherein it is stated that the top and bottom articular surfaces are congruent in the neutral state.

Independent Claims 1, 7, 13, 52, 64, 87, 92, 93 and 97 have been amended to recite the limitation that the third part, preferably the spacer, is non-symmetrical. As stated above, the prosthesis core in Janz is symmetrical and therefore does not read on the independent claims. Accordingly, the present invention

is distinguishable from the implant in Janz. For at least these reasons, Claims 1, 7, 13, 52, 64, 87, 92, 93, 95 and 98 are allowable over Janz.

Regarding Claim 95, it is stated within the Office Action that Claim 95 is objected to and would be allowable if amended to incorporate the limitations in Claim 96. To expedite issuance of the present application, the Applicant has amended Claim 95 to incorporate the limitations in Claim 96. Accordingly, Claim 95 is distinguishable over Janz and is therefore in a condition for allowance.

Regarding the dependent claims, Claims 2, 4, 77 and 78 are dependent on independent Claim 1. Claims 8, 10, 79 and 80 are dependent on independent Claim 7. Claims 16-29, 81 and 82 are dependent on independent Claim 13. Claims 55-63 are dependent on independent Claim 52. Claims 65-71 are dependent on independent Claim 64. Claims 96 and 97 are dependent on independent Claim 95. As stated above, Claims 1, 7, 13, 52, 87 and 95 are distinguishable over the teachings of Janz and is therefore allowable. Accordingly, Claims 2, 4, 6, 10, 16-29, 55-63, 65-71, 77-80, 82 and 97 are thus also allowable for being dependent on allowable base claims.

Rejection Under 35 USC 103

Within the Office Action, Claims 3, 5, 6, 9, 11, 12, 14, 15, 53 and 54 were rejected under 35 U.S.C. 103(a) as being unpatentable over Janz in view of U.S. Patent Application Pub. No. 2003/0208273 to Eisermann et al. (hereinafter Eisermann). Additionally, Claims 83-85 were rejected under 35 U.S.C. 103(a) as being unpatentable over Janz in view of Bryan, et al. The Applicant respectfully disagrees.

Claims 3, 5, 6 and 83 are dependent on independent Claim 1. Claims 9, 11, 12 and 84 are dependent on independent Claim 7. Claims 14, 15 and 85 are dependent on independent Claim 13. Claims 33, 34 and 86 are dependent on independent Claim 87. Claims 53 and 54 are dependent on independent Claim 52. As stated above, Claim 1, 7, 13, 52 and 87 are distinguishable over the teachings of Janz and is therefore allowable. Accordingly, Claims 3, 5, 6, 9, 11, 12, 14, 15, 33, 34, 53, 54 and 83-86 are thus also allowable for being dependent on an allowable base claim.

Allowable Subject Matter

Within the Office Action, Claims 72-74 and 94 were allowed.

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned if any additional information is needed.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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